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<120> PT049P1

<130> Serine/Threonine Phosphatase Polynucleotides, Polypeptides, and Antibodies

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<141> 2001-08-30

<150> PCT/US01/06256

<151> 2001-02-28

<150> 60/186,350

<151> 2000-03-02

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ctcgactaag	agaattaacc	agaactttac	agactagcat	ggcaaaagctt	ctctccgac	1680
ttagtgtgga	cagtgtctgc	tgcaagcctg	ggaataacct	taccaaatac	ctcttgaaca	1740
ttcatgataa	acaacttcaa	catgacccag	ctcctgtctc	cacttccata	atgagctatc	1800
taaataagtt	agaaacaaat	tacagtttta	cacattcaga	gccactttct	acaattaaaa	1860
atgaggaaaac	catagagcca	gacaaaacct	atgaaaatgt	tctgtcctcc	agaggccctc	1920
aaaatagtaa	cactaggggc	atggaggaag	catctgcacc	tggaattatt	tctgcccttt	1980
tcaaaacagg	attctgatga	agggagtgaa	actatggctt	taatagaaga	tgagcataat	2040
ttggataata	caattttacat	tcctttttgct	agaagcactc	ctgaaaagaa	atcaccactt	2100
tctaagagac	tatccctca	gccacaaaata	agagcagcta	caacacagct	agtcagcaac	2160
agtggacttg	ctgtctctgg	aaaagaaaaat	aaactgtgta	cacctgtaat	ctgttctctc	2220
tcaacaaagg	agacagaaga	tgacacctgaa	aaactttcca	gagcatctga	tatgaaggac	2280
acacagctcc	tcaagaaaat	aaaggaagca	attggttaaga	tccctgctgc	caccaaggag	2340
ccagaggaac	aaactgcatg	tcattggcca	tcaggttgtc	ttagcaacag	ccttcaagtg	2400
aaaggcaata	ctgtctgtga	tggtagtgtt	ttcacttctg	acttgatgtc	tgactggagc	2460
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gcatttagatg	ccaacatagc	tagactccag	aagtctttaa	ggactgggtc	tctggagaaa	2580
tgaattcaga	agaaaattca	tcaggtgctt	ctttttaaaa	ctagaacttg	gctatatattg	2640
atgtgtattt	ttcttttagt	aaatgatgtt	ttatgttatt	atgtgtgaag	taatatattg	2700
tacaagtaat	aaatgtattg	ttgagatata	ttgacactga	ggagcttata	aaaacaagtc	2760
atcttaagtt	cacaattgct	acaagaagaa	agttgtggat	aactaggaaa	ttattgtaag	2820
taatgtttta	tttcagtact	tagcaattag	agttctttta	ttaagatgta	tctgctggat	2880
taagggtaca	ggttgaaata	gttctgtggc	tgctctaaga	aataatggga	aaagaatctc	2940
tggtatgtaag	tttttctgtt	gaaactagag	ggtttttttt	ttctgtttac	atatactttt	3000
ttttaatagc	aatgtgtttt	tattaaacat	gctgtgtgcc	acaggccagt	gttgttggtg	3060
aaatatataa	acattttatt	aaagagaaaa	gttaccagta	tctacacctc	ttaaaaaaca	3120
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tgggcacttt	tattttgttt	tatcccaaat	tcattgtttta	aggcctttta	agaatagtca	3240
gactgataaa	gaagtgtctaa	cagataagct	atagttgggg	aaatttgtgg	gtttttttta	3300
aataagaaat	gtttattttt	gtccttatat	ttaaacatga	tggaatttgt	aaatcttggc	3360
attgattgta	attctgcctt	tttggaagaa	ttttttctcc	cagcatgtta	gctgagaata	3420
ttctctattt	tataaataat	atgaagtagg	ttggtctctc	tgcttctcta	taccaggact	3480
tcttagctca	gtatcatctc	ccttcatgta	agcagcacgt	tttaactctt	aggaagctga	3540
atgttgtgtt	atcactaata	ctttgtacag	gtcacctgcc	tactctaatt	gtccttagta	3600
cttgagacagg	ctttatcctc	gtgcc				3625

<400> 17
Met Val Asn Gly Gly Leu Thr Ser Gln Thr Lys Glu Asn Gly Leu Ser
1 5 10 15

Thr	Ser	Gln	Gln	Val	Pro	Ala	Gln	Arg	Lys	Lys	Leu	Leu	Arg	Ala	Pro
		20						25						30	
Thr	Leu	Ala	Glu	Leu	Asp	Ser	Ser	Glu	Ser	Glu	Glu	Glu	Thr	Leu	His
		35				40						45			
Lys	Ser	Thr	Ser	Ser	Ser	Ser	Val	Ser	Pro	Ser	Phe	Pro	Glu	Glu	Pro
		50				55				60					
Val	Leu	Glu	Ala	Val	Ser	Thr	Arg	Lys	Lys	Pro	Pro	Lys	Phe	Leu	Pro
65				70						75				80	
Ile	Ser	Ser	Thr	Pro	Gln	Pro	Glu	Arg	Arg	Gln	Pro	Pro	Gln	Arg	Arg
				85				90						95	
His	Ser	Ile	Glu	Lys	Glu	Thr	Pro	Thr	Asn	Val	Arg	Gln	Phe	Leu	Pro
		100						105				110			
Pro	Ser	Arg	Gln	Ser	Ser	Arg	Ser	Leu	Glu	Glu	Phe	Cys	Tyr	Pro	Val
		115				120						125			
Glu	Cys	Leu	Ala	Leu	Thr	Val	Glu	Glu	Val	Met	His	Ile	Arg	Gln	Val
130						135				140					
Leu	Val	Lys	Ala	Glu	Leu	Glu	Lys	Tyr	Gln	Gln	Tyr	Lys	Asp	Ile	Tyr
145				150						155				160	
Thr	Ala	Leu	Lys	Lys	Gly	Lys	Leu	Cys	Phe	Cys	Cys	Arg	Thr	Arg	Arg
				165				170						175	
Phe	Ser	Phe	Phe	Thr	Trp	Ser	Tyr	Thr	Cys	Gln	Phe	Cys	Lys	Arg	Pro
		180						185				190			
Val	Cys	Ser	Gln	Cys	Cys	Lys	Lys	Met	Arg	Leu	Pro	Ser	Lys	Pro	Tyr
		195				200						205			
Ser	Thr	Leu	Pro	Ile	Phe	Ser	Leu	Gly	Pro	Ser	Ala	Leu	Gln	Arg	Gly
210						215				220					
Glu	Ser	Ser	Met	Arg	Ser	Glu	Lys	Pro	Ser	Thr	Ala	His	His	Arg	Pro
225				230						235				240	
Leu	Arg	Ser	Ile	Ala	Arg	Phe	Ser	Ser	Lys	Ser	Lys	Ser	Met	Asp	Lys
				245				250						255	
Ser	Asp	Glu	Glu	Leu	Gln	Phe	Pro	Lys	Glu	Leu	Met	Glu	Asp	Trp	Ser
		260						265				270			
Thr	Met	Glu	Val	Cys	Val	Asp	Cys	Lys	Lys	Phe	Ile	Ser	Glu	Ile	Ile
		275				280						285			
Ser	Ser	Ser	Arg	Arg	Ser	Leu	Val	Leu	Ala	Asn	Lys	Arg	Ala	Arg	Leu
290						295				300					
Lys	Arg	Lys	Thr	Gln	Ser	Phe	Tyr	Met	Ser	Ser	Pro	Gly	Pro	Ser	Glu
305				310						315				320	
Tyr	Cys	Pro	Ser	Glu	Arg	Thr	Ile	Ser	Glu	Ile					

325

330

<210> 18
 <211> 425
 <212> PRT
 <213> Homo sapiens

<400> 18

Met Ser Gly Ala Gln Ala Lys Ala Ala Val Ile Val Gly Cys Ile Gly
 1 5 10 15

Val Ile Ala Glu Val Asp Lys Ala Ala Leu Glu Lys Arg His Arg Gln
 20 25 30

Gly Trp Leu Met Glu Val Thr Asp Ser Leu Asp Arg Cys Ile Gln Arg
 35 40 45

Leu Arg Glu Ala Arg Lys Lys Lys Glu Val Leu Ser Leu Gly Tyr His
 50 55 60

Gly Asn Val Val Ala Leu Trp Glu Arg Leu Val His Glu Leu Asp Thr
 65 70 75 80

Thr Gly Glu Cys Leu Val Asp Leu Gly Ser Asp Gln Thr Ser Cys His
 85 90 95

Asn Pro Phe Asn Gly Gly Tyr Tyr Pro Val Gln Leu Ser Phe Thr Glu
 100 105 110

Ala Gln Ser Leu Met Ala Ser Asn Pro Ala Val Phe Lys Asp Leu Val
 115 120 125

Gln Glu Ser Leu Arg Arg Gln Val Ser Ala Ile Asn Arg Leu Ala Glu
 130 135 140

Glu Lys Phe Phe Phe Trp Asp Tyr Gly Asn Ala Phe Leu Leu Glu Ala
 145 150 155 160

Gln Arg Ala Gly Ala Asp Val Glu Lys Lys Gly Ala Gly Arg Thr Glu
 165 170 175

Phe Arg Tyr Pro Ser Tyr Val Gln His Ile Met Gly Asp Ile Phe Ser
 180 185 190

Gln Gly Phe Gly Pro Phe Arg Trp Val Cys Thr Ser Gly Asp Pro Gln
 195 200 205

Asp Leu Ala Val Thr Asp Glu Leu Ala Thr Ser Val Leu Glu Glu Ala
 210 215 220

Ile Ala Asp Gly Val Lys Val Ser Val Lys Leu Gln Tyr Met Asp Asn
 225 230 235 240

Ile Arg Trp Ile Arg Glu Ala Ala Arg His Arg Leu Val Val Gly Ser
 245 250 255

Gln Ala Arg Ile Leu Tyr Ser Asp Gln Lys Gly Arg Val Ala Ile Ala

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<210> 19
<211> 944
<212> PRT
<213> Homo sapiens
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Met Thr Val Ser Gly Pro Gly Thr Pro Glu Pro Arg Pro Ala Thr Pro
1 5 10 15

Lys Cys Gly Asp Tyr Gly Gly Ala Leu Ala Ala Tyr Thr Gln Ala Leu
35 40 45

Ala Ala Cys His Leu Lys Leu Glu Asp Tyr Asp Lys Ala Glu Thr Glu
65 70 75 80

Arg Arg Ser Gln Ala Leu Glu Lys Leu Gly Arg Leu Asp Gln Ala Val

100							105					110				
Leu	Asp	Leu	Gln	Arg	Cys	Val	Ser	Leu	Glu	Pro	Lys	Asn	Lys	Val	Phe	
		115					120					125				
Gln	Glu	Ala	Leu	Arg	Asn	Ile	Gly	Gly	Gln	Ile	Gln	Glu	Lys	Val	Arg	
		130				135					140					
Tyr	Met	Ser	Ser	Thr	Asp	Ala	Lys	Val	Glu	Gln	Met	Phe	Gln	Ile	Leu	
145					150					155						160
Leu	Asp	Pro	Glu	Glu	Lys	Gly	Thr	Glu	Lys	Lys	Gln	Lys	Ala	Ser	Gln	
				165					170					175		
Asn	Leu	Val	Val	Leu	Ala	Arg	Glu	Asp	Ala	Gly	Ala	Glu	Lys	Ile	Phe	
			180					185					190			
Arg	Ser	Asn	Gly	Val	Gln	Leu	Leu	Gln	Arg	Leu	Leu	Asp	Met	Gly	Glu	
		195					200					205				
Thr	Asp	Leu	Met	Leu	Ala	Ala	Leu	Arg	Thr	Leu	Val	Gly	Ile	Cys	Ser	
		210				215					220					
Glu	His	Gln	Ser	Arg	Thr	Val	Ala	Thr	Leu	Ser	Ile	Leu	Gly	Thr	Arg	
225					230					235					240	
Arg	Val	Val	Ser	Ile	Leu	Gly	Val	Glu	Ser	Gln	Ala	Val	Ser	Leu	Ala	
				245					250					255		
Ala	Cys	His	Leu	Leu	Gln	Val	Met	Phe	Asp	Ala	Leu	Lys	Glu	Gly	Val	
			260					265					270			
Lys	Lys	Gly	Phe	Arg	Gly	Lys	Glu	Gly	Ala	Ile	Ile	Val	Asp	Pro	Ala	
		275					280					285				
Arg	Glu	Leu	Lys	Val	Leu	Ile	Ser	Asn	Leu	Leu	Asp	Leu	Leu	Thr	Glu	
		290				295					300					
Val	Gly	Val	Ser	Gly	Gln	Gly	Arg	Asp	Asn	Ala	Leu	Thr	Leu	Leu	Ile	
305					310					315					320	
Lys	Ala	Val	Pro	Arg	Lys	Ser	Leu	Lys	Asp	Pro	Asn	Asn	Ser	Leu	Thr	
				325					330					335		
Leu	Trp	Val	Ile	Asp	Gln	Gly	Leu	Lys	Lys	Ile	Leu	Glu	Val	Gly	Gly	
			340					345					350			
Ser	Leu	Gln	Asp	Pro	Pro	Gly	Glu	Leu	Ala	Val	Thr	Ala	Asn	Ser	Arg	
		355					360					365				
Met	Ser	Ala	Ser	Ile	Leu	Leu	Ser	Lys	Leu	Phe	Asp	Asp	Leu	Lys	Cys	
		370				375					380					
Asp	Ala	Glu	Arg	Glu	Asn	Phe	His	Arg	Leu	Cys	Glu	Asn	Tyr	Ile	Lys	
385					390					395					400	
Ser	Trp	Phe	Glu	Gly	Gln	Gly	Leu	Ala	Gly	Lys	Leu	Arg	Ala	Ile	Gln	
				405					410					415		

Pro Glu Met Thr Phe Pro Gly Glu Arg Ile Tyr Glu Val Val Arg Pro
725 730 735

Leu Val Ser Leu Leu His Leu Asn Cys Ser Gly Leu Gln Asn Phe Glu
740 745 750

Ala Leu Met Ala Leu Thr Asn Leu Ala Gly Ile Ser Glu Arg Leu Arg
755 760 765

Gln Lys Ile Leu Lys Glu Lys Ala Val Pro Met Ile Glu Gly Tyr Met
770 775 780

Phe Glu Glu His Glu Met Ile Arg Arg Ala Ala Thr Glu Cys Met Cys
785 790 795 800

Asn Leu Ala Met Ser Lys Glu Val Gln Asp Leu Phe Glu Ala Gln Gly
805 810 815

Asn Asp Arg Leu Lys Leu Leu Val Leu Tyr Ser Gly Glu Asp Asp Glu
820 825 830

Leu Leu Gln Arg Ala Ala Ala Gly Gly Leu Ala Met Leu Thr Ser Met
835 840 845

Arg Pro Thr Leu Cys Ser Arg Ile Pro Gln Val Thr Thr His Trp Leu
850 855 860

Glu Ile Leu Gln Ala Leu Leu Leu Ser Ser Asn Gln Glu Leu Gln His
865 870 875 880

Arg Gly Ala Val Val Val Leu Asn Met Val Glu Ala Ser Arg Glu Ile
885 890 895

Ala Ser Thr Leu Met Glu Ser Glu Met Met Glu Ile Leu Ser Val Leu
900 905 910

Ala Lys Gly Asp His Ser Pro Val Thr Arg Ala Ala Ala Ala Cys Leu
915 920 925

Asp Lys Ala Val Glu Tyr Gly Leu Ile Gln Pro Asn Gln Asp Gly Glu
930 935 940

<210> 20
<211> 449
<212> PRT
<213> Homo sapiens

<400> 20
Met Arg Glu Ser Gly Trp Lys Leu Ile Asp Pro Ile Ser Asp Phe Gly
1 5 10 15
Arg Met Gly Ile Pro Asn Arg Asn Trp Thr Ile Thr Asp Ala Asn Arg
20 25 30

09941331.083001

Asn	Tyr	Glu	Ile	Cys	Ser	Thr	Tyr	Pro	Pro	Glu	Ile	Val	Val	Pro	Lys		
		35						40					45				
Ser	Val	Thr	Leu	Gly	Thr	Val	Val	Gly	Ser	Ser	Lys	Phe	Arg	Ser	Lys		
		50						55					60				
Glu	Arg	Val	Pro	Val	Leu	Ser	Tyr	Leu	Tyr	Lys	Glu	Asn	Asn	Ala	Ala		
		65						70					75		80		
Ile	Cys	Arg	Cys	Ser	Gln	Pro	Leu	Ser	Gly	Phe	Tyr	Thr	Arg	Cys	Val		
					85						90					95	
Asp	Asp	Glu	Leu	Leu	Leu	Glu	Ala	Ile	Ser	Gln	Thr	Asn	Pro	Gly	Ser		
		100						105					110				
Gln	Phe	Met	Tyr	Val	Val	Asp	Thr	Arg	Pro	Lys	Ile	Trp	His	Phe	Leu		
		115						120					125				
Val	Leu	Ile	Met	Arg	Ile	Val	Leu	Gln	Leu	Ala	Lys	Met	Asn	Leu	Met		
		130						135					140				
Asp	Ile	Thr	Lys	Ile	Phe	Ser	Leu	Leu	Gln	Pro	Asp	Lys	Glu	Glu	Glu		
		145			150						155					160	
Asp	Thr	Asp	Thr	Glu	Glu	Lys	Gln	Ala	Leu	Asn	Gln	Ala	Val	Tyr	Asp		
					165						170					175	
Asn	Asp	Ser	Tyr	Thr	Leu	Asp	Gln	Leu	Leu	Arg	Gln	Glu	Arg	Tyr	Lys		
		180						185					190				
Arg	Phe	Ile	Asn	Ser	Arg	Ser	Gly	Trp	Gly	Val	Pro	Gly	Thr	Pro	Leu		
		195						200					205				
Arg	Leu	Ala	Ala	Ser	Tyr	Gly	His	Leu	Ser	Cys	Leu	Gln	Val	Leu	Leu		
		210						215					220				
Ala	His	Gly	Ala	Asp	Val	Asp	Ser	Leu	Asp	Val	Lys	Ala	Gln	Thr	Pro		
		225						230					235		240		
Leu	Phe	Thr	Ala	Val	Ser	His	Gly	His	Leu	Asp	Cys	Val	Arg	Val	Leu		
					245						250					255	
Leu	Glu	Ala	Gly	Ala	Ser	Pro	Gly	Gly	Ser	Ile	Tyr	Asn	Asn	Cys	Ser		
		260						265					270				
Pro	Val	Leu	Thr	Ala	Ala	Arg	Asp	Gly	Ala	Val	Ala	Ile	Leu	Gln	Glu		
		275						280					285				
Leu	Leu	Asp	His	Gly	Ala	Glu	Ala	Asn	Val	Lys	Ala	Lys	Leu	Pro	Val		
		290						295					300				
Trp	Ala	Ser	Asn	Ile	Ala	Ser	Cys	Ser	Gly	Pro	Leu	Tyr	Leu	Ala	Ala		
		305			310						315					320	
Val	Tyr	Gly	His	Leu	Asp	Cys	Phe	Arg	Leu	Leu	Leu	Leu	His	Gly	Ala		
					325						330					335	
Asp	Pro	Asp	Tyr	Asn	Cys	Thr	Asp	Gln	Gly	Leu	Leu	Ala	Arg	Val	Pro		

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<210> 21
<211> 199
<212> PRT
<213> Homo sapiens
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<400> 21															
Met	Trp	Val	Trp	Pro	Ser	Thr	Trp	Ala	Thr	Val	Met	Gly	Ser	Pro	Lys
1				5					10					15	
Ala	Pro	Tyr	Leu	Gln	Ala	Ala	Ser	Val	Val	Ser	Leu	Ser	Trp	Phe	Phe
			20					25					30		
Thr	Phe	Gly	Val	Ala	Ile	Phe	Ser	Arg	Ser	Pro	Trp	Ala	Cys	Ser	Ala
		35					40					45			
Asp	Ile	Pro	Ala	Phe	Ser	Ala	Ala	Ala	Arg	Met	Leu	Cys	Gly	Ser	Val
	50					55					60				
Met	Ser	Ser	Phe	Trp	Glu	Glu	Glu	Lys	Thr	Ala	Gly	Arg	Arg	Cys	Gly
65					70					75					80
Glu	Arg	Gly	Val	Thr	Gly	Arg	Thr	Val	Asp	Pro	Pro	Gly	Gly	Gly	Arg
				85					90					95	
Ile	Met	Thr	Leu	Lys	Thr	Cys	Leu	Gly	Lys	Val	Arg	Lys	Ser	Ser	Lys
			100					105					110		
Val	Leu	Pro	Glu	Asp	Ser	Gln	Ser	Pro	Thr	Leu	Thr	Leu	Asp	Gln	Thr
		115					120					125			
Arg	Ile	His	Ser	Ser	Arg	Asp	Ala	Phe	Ser	Ser	Ile	Ser	Gly	Cys	Ser
	130					135					140				
Lys	Phe	Thr	Ala	Val	Arg	Lys	Arg	Met	Ala	Asp	Lys	Leu	Pro	Val	Gly

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<210> 22
<211> 141
<212> PRT
<213> Homo sapiens
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<210> 23
<211> 234
<212> PRT
<213> Homo sapiens
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<400> 23
Ala Arg Gly Ile Ile Lys Ile Val His Lys Asn Arg Ala Gln Met Leu
  1                               10                          15

Thr Arg Asp Arg Ala Phe Glu Ser Thr Leu Lys Ser Trp Glu Asp Lys
      20                25                30

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<400> 24
Met Ala Glu Val Glu Glu Thr Leu Lys Arg Leu Gln Ser Gln Lys Gly
  1                    5                      10                15

Val Gln Gly Ile Ile Val Val Asn Thr Glu Gly Ile Pro Ile Lys Ser
      20                25                30

Thr Met Asp Asn Pro Thr Thr Thr Gln Tyr Ala Ser Leu Met His Ser
      35                40                45

Phe Ile Leu Lys Ala Arg Ser Thr Val Arg Asp Ile Asp Pro Gln Asn
  50                55                60

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Ala Pro Asp Lys Asp Tyr Phe Leu Ile Val Ile Gln Asn Pro Thr Glu
85 90 95

<400> 25															
Met 1	Lys	Lys	Lys	Ile 5	Glu	Gly	Tyr	Gln	Glu 10	Phe	Ser	Ala	Lys	Pro 15	Leu
Ala	Ser	Arg	Val 20	Asp	Pro	Glu	Lys	Asp 25	Asn	Glu	Thr	Asp	Gln 30	Gly	Ser
Asn	Ser	Glu 35	Lys	Val	Ala	Glu	Glu 40	Ala	Gly	Glu	Lys	Gly 45	Pro	Thr	Pro
Pro 50	Leu	Pro	Ser	Ala	Pro	Leu 55	Ala	Pro	Glu	Lys	Asp 60	Ser	Ala	Leu	Val
Pro 65	Gly	Ala	Ser	Lys	Gln 70	Pro	Leu	Thr	Ser	Pro 75	Ser	Ala	Leu	Val	Asp 80
Ser	Lys	Gln	Glu	Ser 85	Lys	Leu	Cys	Cys	Phe 90	Thr	Glu	Ser	Pro	Glu 95	Ser
Glu	Pro	Gln	Glu	Ala	Ser	Phe	Pro	Ser	Phe 105	Pro	Thr	Thr	Gln 110	Pro	Pro
Leu	Ala	Asn 115	Gln	Asn	Glu	Thr	Glu 120	Asp	Asp	Lys	Leu	Pro 125	Ala	Met	Ala
Asp 130	Tyr	Ile	Ala	Asn	Cys	Thr 135	Val	Lys	Val	Asp	Gln 140	Leu	Gly	Ser	Asp
Asp 145	Ile	His	Asn	Ala	Leu 150	Lys	Gln	Thr	Pro	Lys 155	Val	Leu	Val	Val	Gln 160
Ser	Phe	Asp	Met	Phe 165	Lys	Asp	Lys	Asp	Leu 170	Thr	Gly	Pro	Met	Asn 175	Glu
Asn	His	Gly 180	Leu	Asn	Tyr	Thr	Pro	Leu 185	Leu	Tyr	Ser	Arg	Gly 190	Asn	Pro
Gly	Ile	Met 195	Ser	Pro	Leu	Ala	Lys 200	Lys	Lys	Leu	Leu	Ser 205	Gln	Val	Ser
Gly 210	Ala	Ser	Leu	Ser	Ser	Ser 215	Tyr	Pro	Tyr	Gly	Ser 220	Pro	Pro	Pro	Leu

Ile Ser Lys Lys Lys Leu Ile Ala Arg Asp Asp Leu Cys Ser Ser Leu
 225 230 235 240
 Ser Gln Thr His His Gly Gln Ser Thr Asp His Met Ala Val Ser Arg
 245 250 255
 Pro Ser Val Ile Gln His Val Gln Ser Phe Arg Ser Lys Pro Ser Glu
 260 265 270
 Glu Arg Lys Thr Ile Asn Asp Ile Phe Lys His Glu Lys Leu Ser Arg
 275 280 285
 Ser Asp Pro His Arg Cys Ser Phe Ser Lys His His Leu Asn Pro Leu
 290 295 300
 Ala Asp Ser Tyr Val Leu Lys Gln Glu Ile Gln Glu Gly Lys Asp Lys
 305 310 315 320
 Leu Leu Glu Lys Arg Ala Leu Pro His Ser His Met Pro Ser Phe Leu
 325 330 335
 Ala Asp Phe Tyr Ser Ser Pro His Leu His Ser Leu Tyr Arg His Thr
 340 345 350
 Glu His His Leu His Asn Glu Gln Thr Ser Lys Tyr Pro Ser Arg Asp
 355 360 365
 Met Tyr Arg Glu Ser Glu Asn Ser Ser Phe Pro Ser His Arg His Gln
 370 375 380
 Glu Lys Leu His Val Asn Tyr Leu Thr Ser Leu His Leu Gln Asp Lys
 385 390 395 400
 Lys Ser Ala Ala Ala Glu Ala Pro Thr Asp Asp Gln Pro Thr Asp Leu
 405 410 415
 Ser Leu Pro Lys Asn Pro His Lys Pro Thr Gly Lys Val Leu Gly Leu
 420 425 430
 Ala His Ser Thr Thr Gly Pro Gln Glu Ser Lys Gly Ile Ser Gln Phe
 435 440 445
 Gln Val Leu Gly Ser Gln Ser Arg Asp Cys His Pro Lys Ala Cys Arg
 450 455 460
 Val Ser Pro Met Thr Met Ser Gly Pro Lys Lys Tyr Pro Glu Ser Leu
 465 470 475 480
 Ser Arg Ser Gly Lys Pro His His Val Arg Leu Glu Asn Phe Arg Lys
 485 490 495
 Met Glu Gly Met Val His Pro Ile Leu His Arg Lys Met Ser Pro Gln
 500 505 510
 Asn Ile Gly Ala Ala Arg Pro Ile Lys Arg Ser Leu Glu Asp Leu Asp
 515 520 525
 Leu Val Ile Ala Gly Lys Lys Ala Arg Ala Val Ser Pro Leu Asp Pro


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<210> 26
<211> 132
<212> PRT
<213> Homo sapiens
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<400> 26
His Glu Ile Glu His Gly Glu Phe Glu Lys Asn Leu Tyr Gly Thr Ser
  1             5             10             15

Ile Asp Ser Val Arg Gln Val Ile Asn Ser Gly Lys Ile Cys Leu Leu
      20             25             30

Ser Leu Arg Thr Gln Ser Leu Lys Thr Leu Arg Asn Ser Asp Leu Lys
      35             40             45

Pro Tyr Ile Ile Phe Ile Ala Pro Pro Ser Gln Glu Arg Leu Arg Ala
  50             55             60

Leu Leu Ala Lys Glu Gly Lys Asn Pro Lys Pro Glu Glu Leu Arg Glu
  65             70             75             80

Ile Ile Glu Lys Thr Arg Glu Met Glu Gln Asn Asn Gly His Tyr Phe
      85             90             95

Asp Thr Ala Ile Val Asn Ser Asp Leu Asp Lys Ala Tyr Gln Glu Leu

```

```

<400> 28
Met Tyr Ser Pro Ile Ile Tyr Gln Ala Leu Cys Glu His Val Gln Thr
  1                               5          10          15

Gln Met Ser Leu Met Asn Asp Leu Thr Ser Lys Asn Ile Pro Asn Gly
          20          25          30

Ile Pro Ala Val Pro Cys His Ala Pro Ser His Ser Glu Ser Gln Ala
      35          40          45

Thr Pro His Ser Ser Tyr Gly Leu Cys Thr Ser Thr Pro Val Trp Ser
    50          55          60

Leu Gln Arg Pro Pro Cys Pro Pro Lys Val His Ser Glu Val Gln Thr
  65          70          75          80

Asp Gly Asn Ser Gln Phe Ala Ser Gln Gly Lys Thr Val Ser Ala Thr
          85          90          95

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Ala Leu Val Asn Val Lys Ser Ser Gln Phe Lys Leu Glu Thr Ala Glu

[illegible]